

REMARKS

This amendment is responsive to the Office Action of July 16, 2008.
Reconsideration and allowance of claims 1-13 and 16 are requested.

The Office Action

Claims 1-13 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-13 were rejected under 35 U.S.C. 102(e) as being anticipated by Daeche et al. (U.S. Patent No. 7,221,048).

The Present Application

The present application is directed to a device with a body of an electrically insulated material having a first side and, opposite thereto, a second side, electric conductors which are anchored in the body being situated on the first side, wherein the body is provided with a recess extending from the first side to the second side. Additionally, the electric conductors comprise first, second, and third layers, wherein the electrically insulating material extends into cavities in the second layers to mechanically anchor the electric conductors in the body.

One objective of the present application is to increase the compactness of the assembly as well as mechanically anchor the electric conductors within the body of the structure. This compactness shields the electrical elements from the material flowing at the surface, enhances signal integrity, and reduces the electrical losses of the structure.

The above description of the present application is presented to the Examiner as background information to assist the Examiner in understanding the application. The above description is not used to limit the claims in any way.

The References of Record

Daeche et al. is directed to a multilayer circuit carrier including at least one semiconductor chip, at least one rewiring layer with a rewiring structure, and at least one insulation layer, which has passage structures.

The Finality of the Office Action is Premature

In the Amendment of June 11, 2008, independent claim 1 was not amended. No substantive amendment was made to claim 1 in response to the Office Action of January 25, 2008. Claim 1, as presented in the Amendment of June 11, 2008 was the same as independent claim 1 in the Amendment of January 2, 2008. Claim 1 was not further limited. Even though claim 1 was not amended, the Examiner withdrew the prior ground of rejection and instituted a new ground of rejection. No new limitations were added to it which would require further search or consideration.

Claim 1 was last amended on January 2, 2008. On that occasion, claim 1 was further limited and in no way broadened. An amendment which only narrows a claim does not necessitate withdrawing a 35 U.S.C. 103 rejection to apply a new reference 35 U.S.C. 102 rejection. If the Examiner has a reference that he believes to be anticipatory it should be applied on the first Office Action and not held back until the third Office Action. The new ground of rejection was not necessitated by the Applicant's amendment, but by the Examiners failure to cite Daeche et al. in a timely manner.

This new ground of rejection was not necessitated by the applicant's amendment as asserted by the Examiner in Conclusion of the Office Action.

112 2nd Paragraph

Claims 1-13 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per **claim 1**, the Examiner asserts that it is unclear and confusing to what is meant by "the body is provided with a recess extending from the first side to the second side." Additionally, the Examiner asserts that it is unclear where this is shown in the specification and drawings as well as how the recess is going through the device. The claimed device finds an illustrative example of antecedent basis in Figures 2A and 2B. In reference to Figure 2A, the device is shown as 10, the first side

of the body of the device is shown as 101, and the recess is shown as 110. In reference to Figure 2B, the same device is shown as 10, the second side of the body of the device is shown as 102, and the same recess as in Figure 2A is shown as 110. As shown in Figures 2A and 2B, the recess completely extends from the first side of the body of the device to the second side of the body of the device. Additionally, this device and structure is detailed in the specification on page 9 lines 32-34 and page 10 lines 1-5 and 19-27.

As per **claim 4**, the Examiner asserts that it is unclear and confusing to what is meant by “in that the recess is trapezoidal.” The claim has been amended to clearly define the three dimensional shape described in the application. The claimed device finds an illustrative example of antecedent basis in Figures 2A and 2B and well as antecedent basis in the specification on page 9 lines 32-34 and page 10 lines 1-5.

As per **claims 9-11**, the claims have been amended to address the antecedent basis issues raised by the Examiner for the first time in the Final Rejection.

As per **claim 11**, the Examiner asserts that it is unclear and confusing to what is meant by “a lid on the second side of the device, the lid and the device enclosing a channel which connects to the recess and is suitable for the transport of a fluid.” Additionally, Examiner asserts that is unclear where this is shown in the specification and drawings. The claimed device finds an illustrative example of antecedent basis in Figures 6A, 6B, and 8. In reference to Figure 6A, the lid 300 is provided with a channel 310. In reference to Figure 6B, the lid 300 is shown on the second side of the device 302. The lid 300, being on the second side of the device 302, then encloses the channel 310 which was provided on the first side 301 of the lid. In reference to Figure 8, the device assembly 500 is shown where each recess 110 has a corresponding channel 400 which it is connected to. Additionally, this device and structure is detailed in the specification on page 10 lines 31-33 and page 11 lines 1-2 and 9-16.

As per **claim 12**, the Examiner asserts that it is unclear and confusing to what is meant by the phrase “A sub-assembly of a device as claimed in claim 1” and whether the device is the same device as claimed in claim 1. The device is a sub-assembly of the device claimed in claim 1. Claim 12 has been amended to clearly clarify the sub-assembly and the device being claimed. Additionally, Examiner

asserts that it is unclear and confusing that is meant by "a lid including a channel extending between first and second connections and couples to the second side of the device, the lid and the device thereby enclosing the channel which further connects to the recess and which is suitable for the transport of a fluid into the recess between the first and second connection." The claimed device finds an illustrative example of antecedent basis in Figures 6A, 6B, and 8. In reference to Figure 6A, as mentioned above, the lid 300 is provided with a channel 310. In reference to Figure 6B, the lid 300 is shown on the second side of the device 302. Additionally in reference to Figure 6B, as mentioned above, the lid 300, being on the second side of the device 302, then encloses the channel 310 which was provided on the first side 301 of the lid. Figure 6B also shows the lid 300 also having a first connection 321 and a second connection where the channel 310 extends between the first 321 and second 322 connections. In reference to Figure 8, the device assembly 500 is shown where each recess 110 has a corresponding channel 400 which extends between the first 321 and second 322 connections. Additionally, this device and structure is detailed in the specification on page 10 lines 31-33 and page 11 lines 1-2 and 9-16.

**The Claims Distinguish Patentably
Over the References of Record**

Claims 1-13 are not anticipated by Daeche et al. (U.S. Patent No. 7,221,048).

More specifically, regarding **claim 1**, Daeche does not disclose the claimed device having "electric conductors which are mechanically anchored in the body being situated on the first side" and "wherein the electrically insulating materials extends into the cavities between patterns in the second layer to mechanically anchor the electric conductors in the body situated on the first side." The Examiner refers applicant to Figures 1-28 and reference characters 6, 7, 9, 11, 13, 14, and 30 which discloses a multilayer circuit carrier having an anchoring layer which includes plastic and forms a special insulation layer since the plastic has electrically conductive anchor laminar which provides an electronic conduction function and a mechanical anchoring function. Daeche does not disclose "electric conductors which are mechanically anchored in the body" and "wherein the electrically insulating material

Accordingly, it is submitted that independent claim 1 and claims 2-13 and 16 that depend therefrom, distinguish patentably over the references of record.

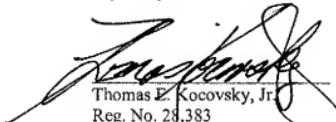
CONCLUSION

For the reasons set forth above, it is submitted that **claims 1-13 and 16** (all claims) distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

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